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A DEMONSTRATION PROJECT IN ART EDUCATION FOR DEAF AND HARD OF HEARING CHILDREN AND ADULTS.

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THIS PROJECT WAS DESIGNED TO ASSESS APTITUDES, INTEREST, AND VOCATIONAL OPPORTUNITIES FOR THE HEARING IMPAIRED IN THE VISUAL ARTS AND TO IDENTIFY EFFECTIVE METHODS OF TEACHING ART. A GROUP OF 54 DEAF AND HARD OF HEARING CHILDREN AND ADULTS ATTENDED EXPERIMENTAL ART CLASSES. THREE RATING SCALES AND THE TORRANCE TEST OF CREATIVE THINKING WERE THE INSTRUMENTS USED TO ASSESS APTITUDE. STUDENT INTEREST WAS MEASURED BY QUESTIONNAIRES. CRAFTSMEN, EMPLOYERS, AND ART SCHOOL ADMINISTRATORS COMPLETED QUESTIONNAIRES DESIGNED TO MEASURE VOCATIONAL OPPORTUNITIES. CONCLUSIONS WERE--(1) APTITUDE AND INTEREST IN THE VISUAL ARTS IS AS HIGH FOR THE DEAF AS FOR THE HEARING, (2) A TALENTED DEAF PERSON CAN SUCCEED AS A CRAFTSMAN, (3) SOME PEOPLE WORKING WITH THE DEAF TEND TO UNDERESTIMATE THE APTITUDES, INTERESTS, AND VOCATIONAL OPPORTUNITIES FOR THE DEAF IN THE VISUAL ARTS, AND (4) ART TECHNIQUES AND CONCEPTS CAN BE CONVEYED TO DEAF STUDENTS WITHOUT THE USE OF LANGUAGE. QUESTIONNAIRE RESPONSE TABULATIONS ARE PRESENTED ALONG WITH SAMPLE QUESTIONNAIRES AND RESPONSES. ELEVEN REFERENCES ARE CITED. (MW)

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Rawley A. Silver, Ed.D.

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CHAPTER I

INTRODUCTION

Background

Since deafness closes the door to many vocations and avocations, there is a need for information about the aptitudes and interests of people who are deaf. In this study, the term deaf will include those who are hard of hearing or aphasic, unless otherwise indicated.*

Low expectations of ability can distort the problem. Few look for ability in the visual arts among the deaf, yet deafness could be expected to develop qualities which are related to talent, such as originality or sensitivity. The deaf person must often guess at the meaning of events and be tuned to whatever clues he can find. It would seem natural for him to express his reactions visually, through the same channel from which he receives most of his impressions. He could also be expected to develop ability in visual thinking, and as a matter of fact, deaf children have been found superior to hearing children on tests of memory for design and movement (6, p.82; 2,p.46).

Few expect the deaf to have interests in the visual arts. In fact one vocational specialist with whom the project was discussed in its early stage, predicted that the greatest difficulty would be finding a population to work with, and another predicted that those who enrolled in the classes would ask to be paid for their trouble. With hindsight, it is not surprising that an invitation to study art in a class for deaf students would have wide appeal. The visual

*When distinctions are made, the term aphasia will refer to those who have brain damage which impedes the interpretation and/or transmission of language. The term hard of hearing will refer to those whose hearing loss occurred after language was acquired. The term deaf will refer to those whose hearing loss has prevented the normal acquisition of language.

arts can compensate in many ways: deafness is isolating and art is a means of sharing experiences without the need for talk. The enjoyment of works of art can be profound, and there is pleasure as well in making art forms. Art minimizes verbal ability and capitalizes on visual thinking, sensitivity to environment, and the desire to communicate.

Few expect the deaf to succeed as craftsmen, designers, or artists. Public funds are available for the tuition of a handicapped person if it seems likely to enable him to earn his living, but they are rarely available to a deaf person seeking a career in the fine or applied arts. This will be illustrated by the experience of one of the students on page 28.

The fact that even the deaf who go to college often choose to be tradesmen (6, p.365) suggests that counseling leads them to the trades. But what if vocational and educational expectations are unrealistically low? What if many deaf persons have aptitudes but little or no opportunity to develop them?

The evidence of aptitude can be profoundly affected by expectations. Torrance has shown that highly creative children conceal their ability when they fear rejection or failure (9, p.126). Ability in the visual arts is particularly vulnerable to the opinions of an art teacher (8, p.169).

Like low expectations, inadequate teaching can make decisive difference in the evidence of aptitude in students. In a study of 9000 Canadian hearing children, during a period of more than two years, it was found that imitative procedures interfered with their development in artistic expression, and that when they were required to draw a series of objects according to a teacher's directions, they were retarded when compared with children who were allowed to devise their own symbols (3, p. 39). Yet an observer visiting art classes in schools for the deaf saw students in one school copying their teacher's model of a Christmas tree ornament, and coloring in areas of a design outlined by the teacher, taking turns with a single brush and a single jar of paint. In a second school for the deaf, students painted from plaster casts in tints and shades of a single color; in a third, they copied

their teacher's own painting, an abstraction in the manner of Jackson Pollock, and in a fourth, they copied photographs clipped from a magazine (8).

Of four studies of artistic ability in deaf children, two found little difference between deaf and hearing in artistic judgment (6, p.368). The third, a study of ability rather than judgment, found major differences (4, p.421). Evaluating paintings made by 20 deaf children over a period of six years, an art educator found them different from the work of hearing children in subject matter and technique. The findings suggest that deaf children are retarded in artistic ability and that deafness is the cause. The possibility that the cause might lie elsewhere was not considered, nor were objectives or methods of teaching described. In the fourth study, however, 25 children in four schools for the deaf attended experimental art classes for about 10 weeks. Their paintings were then compared with the work of hearing children by 17 art educators: 8 found no differences, 7 found the deaf less mature, and 2 found them superior in aptitude for art (8, p.80). This suggests that lack of ability in art may be due, not to deafness, or lack of aptitude, but to teaching practices.

Hypothesis

1. Given an adequate introduction to studio experiences and the offerings of museums, deaf students can be expected to have as much aptitude and interests in the visual arts as do hearing students.
2. Vocational opportunities for the deaf in the applied arts are generally underestimated.

Objectives

1. To obtain information about aptitudes, interests, and vocational opportunities in the visual arts for the deaf.
2. To identify effective methods of teaching art to deaf children and adults.

CHAPTER II

METHODS

Notices were sent to schools and other agencies in the New York City area announcing that there would be free instruction in painting and sculpture, as well as field trips, for a limited number of deaf children and adults at the New York Society for the Deaf.

Students were not selected but were accepted in the order in which they applied.* The children's class was limited to 8 students each term, and the adult-teenager class was limited to 15 students each term. Three children, 3 teenagers, and 4 adults enrolled in the second term as well as the first term for reasons described on page 17. Consequently, an additional class was taught at a school for the deaf, where administrators chose 8 students. Thus the total population was 54, of whom 17 were adults, 13 were teenagers, and 24 were children. Nineteen students were deaf (9 children, 4 teenagers, 6 adults); 9 students were hard of hearing (3 teenagers, 6 adults); and 13 students were believed to be aphasic (10 children and 3 teenagers).

There were 14 sessions in each term. Children's classes were held Saturday mornings for a period of one hour; adult classes were held Saturday afternoons for a period of two hours. The class at the school for the deaf was held during the school day for a period of one hour.

Methods of Assessing Aptitude for Art

A total of five assessments of aptitude were made, all of them comparisons between the deaf and the hearing. One was an objective test and four were evaluations

*There were two exceptions: the application of a belligerent teenager was not accepted, and the parents of an emotionally disturbed child who required continual attention were asked to withdraw him from the class.

by panels of judges, three of which were rating scales.

In the visual arts, achievement and potential are usually rated subjectively rather than by means of objective scores. Painters, handcraftsmen, and sculptors submit their work to juries who decide which works will be accepted for exhibition and which will receive awards.

Two tests of artistic judgment were available to the project, but it was felt that the qualities they measure do not indicate aptitude for art and that the tests were therefore unsuitable.

The directors of two leading art schools were asked for their views. One indicated that his school does not use objective art tests. Instead, a prospective student is asked to draw from observation, memory, and imagination. His drawings are then judged subjectively by members of the faculty. The other replied, "We have done a good deal of work with attempting to measure artistic aptitudes, and now rely for our selection on portfolios, interviews, and the recommendations of interested and knowledgeable people.....The art tests usually measure achievement, not potential, and we are not particularly interested in the former....."

The assessments in the project were as follows:

1. Comparison of Paintings

One painting by each of 22 deaf art students and 22 hearing art students was evaluated by three art educators. The paintings were identified only by number, and if by children, the ages of the painters.

Since the assessment was an attempt to measure potential rather than achievement, the qualities judged were as follows:

SENSITIVITY - keen awareness of and response to colors, shapes and other visual experiences.

EXPRESSIVENESS - ability to embody in an image his attitudes or ideas so that they are communicated effectively.

ORIGINALITY - imaginative subject matter or unconventional use of tools or materials.

2. Comparison of Portfolios

Portfolios of paintings and drawings by 16 deaf students were evaluated by a panel of 13 art educators who were unaware that the students were deaf. It was felt that if they knew, they might be influenced, either favorably because of sympathy, or unfavorably because of low expectations.

The judges were asked to compare each portfolio, not with the other portfolios, but with the work of their own students. They were asked to evaluate them for promise as well as ability since some of the painters had little art education and others had much. The qualities judged were the same as in Comparison #1: sensitivity, originality and expressiveness.

3. Comparison by Observers

Invitations to observe the project classes were sent to art schools, schools for the deaf, special educators, and art teachers. Eleven out of 23 accepted. After visiting the classes, the observers were asked to compare the students with their own students in independence, interest in art, and, as with Comparisons #1 and #2, sensitivity, originality and expressiveness. They were also asked to assess differences in teaching the two groups.

4. Torrance Test of Creative Thinking, Figural Form A

This objective test is not concerned with artistic ability, nor is it designed for the deaf. It is a non-verbal test, however, and in aptitude for art, it is believed creative thinking is essential.

The test was administered to 12 students without a time limit but with a record of time consumed, as suggested by Dr. Torrance, who, with his associates, scored the tests.

5. Submission of Painting to Juried Art Exhibition

A painting produced in the art class for adults was submitted in an annual juried competition in which there were over 200 entries.

Method of Assessing Interest in Art

It was felt that useful information would be found in the reasons why students had enrolled in the art classes, how much time they spent travelling to and from classes, and whether they intended to continue in art after the classes ended.

Questionnaires were prepared for adult students and for parents of the children. Teenagers who could read well answered the adult questionnaire, while their parents responded for those who could not. There was no questionnaire for children who attended the class at the school for the deaf since they had not volunteered, but had been selected by their teachers.

Method of Assessing Vocational Opportunities

A pilot questionnaire was sent to 12 leading potters in various parts of the country asking for their opinions regarding employment possibilities for the deaf in their field. In view of their replies, the questionnaire was rewritten, and the second questionnaire sent to 50 employers, craftsmen, and administrators of art schools.

Method of Assessing Teaching Procedures

Sign language or finger-spelling were not used. The procedures were essentially the same as in teaching hearing students but with the following shifts in emphasis:

1. Demonstrating art techniques rather than talking about them.
2. Encouraging students to work independently rather than to follow directions.

3. Encouraging experimentation and personal choice of subject matter rather than drawing from observation or assigned topics.

4. Greater emphasis on reproductions of works of art.

5. Greater use of films to demonstrate art techniques, and field trips to museums and workshops.

6. Writing rather than talking when language was needed, and giving each student a copy of announcements.

7. Avoiding experiences which cause anxiety, emphasizing individual growth rather than objective standards of skill.

It was felt that the more promising methods could be identified through trial and error in the classroom, and that the evaluation of methods could be made by the instructor.

CHAPTER III

RESULTS

Aptitude for Art

1. Comparison between paintings by 22 deaf and 22 hearing art students

Three members of the Department of Art and Education at Teachers College, Columbia University, were asked to evaluate 44 unidentified paintings by deaf and hearing students.

The 22 deaf students were the total number of students in the project classes during the first term, with the exception of one adult who worked only in sculpture. The 22 hearing students had been attending public elementary and secondary schools or an adult education class in a public high school. Since there are many students in these classes, the teachers of hearing children and teenagers chose students whose artistic ability they judged to be average for their ages. Although all of the hearing adults had previous art experience, their teacher chose students who were comparative beginners. Children and teenagers were matched for age, and each teacher chose one work by each student.

The paintings, identified only by number and age of child were rated 1 to 5 points for each of the qualities of sensitivity, originality, and expressiveness as defined on page 5, with 5 points given to the most and 1 point given to the least.

Results: The average scores of the deaf children and adults were slightly higher than the scores of their hearing counterparts, while the scores of the deaf teenagers were slightly lower, as indicated in Table I. The highest score went to a deaf boy - 44 points out of a possible 45.

TABLE I: Comparison between average scores of 22 deaf and 22 hearing art students

	<u>Total</u>	<u>Sensi- tivity</u>	<u>Express- iveness</u>	<u>Origin- ality</u>
8 Hearing Children	2.33	2.54	2.50	1.96
8 Deaf Children	2.43	2.33	2.54	2.41
7 Hearing Teenagers	3.25	3.33	3.43	3.00
7 Deaf Teenagers	2.89	2.86	3.05	2.76
7 Hearing Adults	3.00	3.29	3.05	2.67
7 Deaf Adults	3.08	2.90	3.24	3.10

2. Comparison of portfolios of work by 16 deaf students with the work of hearing art students

Portfolios of paintings and drawings by 16 deaf students were evaluated by 13 art educators who were asked to compare them with the work of their own students, and to evaluate them in the light of their experience as painters as well as teachers.

The judges were obtained as follows: A member of the faculty provided a list of 17 graduate students in the Department of Art and Education at Teachers College. Of these, 10 accepted an invitation to serve on the panel. They were told nothing of the project, its personnel, or the backgrounds of the painters. Six who taught art in elementary schools evaluated the children's portfolios. Four who taught art in colleges or graduate schools, together with 3 members of the faculty, evaluated the portfolios of teenagers and adults.

The students included 3 seniors from a public high school, which has a program for deaf students, who had been selected by their teachers for ability in art. Their backgrounds included 2 or 3 terms of Costume Design, 2 or 3 terms of Art Appreciation, and 1 term of Elective Art. Each was 18 years old. In addition, there were 8 children, 3 teenagers and 2 adults who attended the art class in the project. The latter were 14, 17, 19, 24, and 30 years of age.

The judges evaluated the portfolios for originality, sensitivity, and expressiveness, as defined on

page 5. However, the judges were asked to assume, in this evaluation, that a score of 3 represented an average student in one of their classes. Thus 1 point was given to a portfolio which showed very little of a particular quality, 2 points for below average of that quality, 3 points for average, 4 points for above average, and 5 points for outstanding.

Results: The average scores of the 13 deaf students from the project were above average when compared with hearing students in elementary schools, or colleges and beyond. The 3 deaf students from the public high school were below average when compared with hearing students. Nevertheless, the combined average score for the 16 deaf students was slightly above average, as indicated in Table II.

TABLE II: Comparisons of the average scores of 16 deaf students with the average of 3 points for hearing art students

	<u>Combined Av. Scores</u>	<u>Origin- ality Av. Sc.</u>	<u>Sensi tivity Av. Sc.</u>	<u>Express- iveness Av. Sc.</u>
Children from project class	3.53	3.40	3.52	3.74
Teenagers/adults from project	3.26	3.14	3.27	3.40
Seniors from high sch. class	2.53	2.23	2.83	2.43
Total number of Deaf Students	3.11	2.92	3.21	3.19

Space was left on the rating scales for comments, and some of the judges made use of it. Six comments which explain the reasoning behind the evaluations, may be found in Appendix A. One in particular indicates that the judge had penalized a child who wrote messages on his pictures: "In the case of _____ I would have

assessed his work as more creative if the use of language in the drawings were not so prominent. I felt the words were substitutions for an image." Thus concealing the fact that the subjects were deaf produced at least one unfortunate consequence. For children whose handicap is essentially language impairments, and whose education revolves around language development, the use of language with a painting has a special meaning.

In fairness to the 3 deaf high school students whose scores were below average, it must be recognized that they were competing not only with hearing art students in college and beyond, but also with deaf art students whose instructor was trying to develop the qualities which were judged. The instructors of these 3 students may well have had different objectives. The art classes they had attended were classes for hearing students.

3. Comparison by 11 observers

Differences between teaching deaf and hearing students were assessed by 11 teachers who accepted an invitation to observe the project classes. Of these, 2 were teachers of academic subjects who taught only deaf students, 3 were art teachers who taught only hearing students, and the remainder had taught both deaf and hearing students. (2 taught art and 4 taught academic subjects as well as art.)

Results: Only the 2 teachers who taught deaf students exclusively found them less independent, original, sensitive, and expressive than hearing students. They thought deaf students were equal only in interest in art, and in none of the categories superior to hearing students. They also thought teaching the deaf was more difficult, interesting and gratifying (Table III).

In sharp contrast, the 9 observers who taught art or who taught both deaf and hearing students were about evenly divided between finding the deaf students superior or equal, in independence, sensitivity, originality, expressiveness, and interest in art. One thought it was more difficult to teach the deaf, one thought it was less difficult, and 7 thought the difficulty was about the same. Two thought it was more interesting to teach

the deaf while 6 thought them equally interesting. Five thought it was more gratifying to teach the deaf while 4 thought they were equally gratifying (Table III).

TABLE III: Comparisons between teaching the deaf and the hearing

2 TEACHERS OF THE DEAF 9 TEACHERS OF BOTH DEAF AND HEARING

In comparison with hearing students, these students show

MORE	SAME	LESS	MORE	SAME	LESS
2		2	INDEPENDENCE	4	5
2		2	INTEREST IN ART	5	4
2		2	SENSITIVITY	4	4
2		2	ORIGINALITY	4	5
2		2	EXPRESSIVENESS	5	4
0	2	8		22	22
					0

In comparison with teaching hearing students, teaching the hearing-impaired is

MORE	SAME	LESS	MORE	SAME	LESS
2		2	DIFFICULT	1	7
2		2	INTERESTING	2	6
2		2	GRATIFYING	5	4
6	0	0		8	17
					1

4. Torrance Test of Creative Thinking

This test, which is a measure of creative thinking in general rather than creativity in art, was administered to 12 students from the project art classes - 8 children, 3 teenagers, and 1 adult.

The test consists of three tasks. In the first, subjects are asked to draw a picture in which a pear shape, made of colored paper with adhesive backing, is an integral part. In the second task, subjects are asked to draw pictures by adding lines to ten incomplete figures. In the third task, they are asked to

draw pictures using 30 pairs of parallel lines. In each task, they are urged to think of interesting pictures or objects that no one else will think of, and to give them names or titles. It was impossible to convey this idea to the children and to one of the teenagers, but it was probably understood by the other three who read the directions. The students were also asked to add titles to their pictures, as required on the test, but this was not insisted on. These tasks involve the ability to acquire information, form relationships, and return to the same stimulus repeatedly, perceiving it in different ways. The results are evaluated for Originality, Fluency, Flexibility, and Elaboration. The tests were scored at the University of Georgia by Dr. Torrance and his associates.

Results: The 12 students had a very high level of performance, as indicated in Table IV. Their average scores were in the 99th percentile in both Originality and Elaboration, in the 97th percentile in Fluency, and in the 88th percentile in Flexibility. Eight of the 12 had composite total T-scores between 80 and 83, placing them in the 99th percentile. An attempt was made to administer the test to two additional students in the adult class who seem to suffer from brain damage as well as deafness. Neither was able to do any of the tasks.

TABLE IV: Torrance Test of Creative Thinking,
Figural Form A

<u>Deaf Students</u>	<u>Fluency</u>	<u>Flexi- bility</u>	<u>Origin- ality</u>	<u>Elabora- tion</u>
Av. T-scores	70.0	63.25	82.25	95.58
Percentiles	97th	88th	99th	99th

5. Submission of Painting to Juried Art Competition

A painting produced in a project art class was submitted in the annual competition of the Mamaroneck Artists Guild of Mamaroneck, New York. It was open to residents of Westchester County, New York, and New York City. The jury knew nothing of the project,

instructor, or painter. The painting was one of 60 paintings and 25 sculptures to be accepted from over 200 entries. It was also one of the 12 works which received an award.

Interest in Art

Announcement of the art classes consisted of notices sent to agencies and schools for the deaf, a notice in Highlights, the publication of the New York League for the Hard of Hearing, and a notice in Chronicle, the publication of the New York Society for the Deaf.

As a result, the classes were filled, and there was no need to announce the second term classes since they were filled from a waiting list which continued through the end of the second term.

Because of the response to the project, the New York Society for the Deaf has announced that it will continue to provide Saturday art classes for adults and children next year.

In order to obtain specific information about interest, two questionnaires were prepared, one for the teenagers and adults who attended the classes, and one for the parents of children and those teenagers who could not reply themselves. The questionnaires and responses may be found in Appendix B.

1. Reasons why students Attended the Art Classes

Among the 16 children, drawing or painting was the chief interest of 5, and among the chief interests of 10, according to their parents' responses. Eleven had wanted more art experience for their children than they were receiving at their schools which had no art teachers for 5 of the children. Parents of 6 of the children had difficulty finding an art class which would accept them.

Seven of the 16 adults and teenagers indicated that they enrolled because of interest in careers in art. Of these, 3 were already commercial artists: one having enrolled because he wanted to learn more about museums, exhibitions, and art classes; the second, because she painted at home and wanted instruction ("I wanted to find out how to go about doing original art

work without copying from pictures or models (if not available"); the third, because he found it difficult going to museums and wanted to learn more about them. The other four were teenagers who painted at home and wanted to learn more about art classes.

Seven indicated that their reason for attending was an interest in art as a hobby, one adding that it had been her hobby for 18 years. Five wanted to learn more about art classes, 2 worked at home and sought instruction, 2 found it difficult to attend art classes for hearing students, 1 found it difficult to go to museums, and 3 wanted to learn more about museums and exhibitions.

Traveling Time

The 16 children, usually accompanied by their parents, traveled an average of 43 minutes in order to reach the art class from their homes. Five spent an hour or more traveling to the class. For one child, it was necessary to take 2 buses and a train each way and he was present for 10 of the 14 sessions.

The adults and teenagers traveled an average of 42 minutes to reach the class. Four spent an hour or more traveling to the class; one, in her seventies, said it took an hour and 25 minutes each way.

Intention of Continuing in an Art Class

Since the second term was planned for new students, it was necessary for the original students to find art classes elsewhere if they wanted to continue. To help them find instruction, 23 art schools, settlement houses, 'Y's and adult education programs were approached for catalogues and other information. The responses varied considerably. The director of one museum-connected art school refused to interview a deaf student or look at a portfolio because the school was "not equipped to handle handicapped students." Another said the second term classes were already filled one month before the first term ended. The director of the art programs at a 'Y' said she might interview a deaf student providing he had "intense" interest in art. On the other hand, some welcomed deaf students and one

even offering to help teach in the project.

No classes were found for 5 of the 8 children who had attended the first term. Since 3 had enrolled after the class started, they were enrolled again in the second term. Two attended the school for the deaf where the additional class was taught and thus continued there. Two did not continue, presumably for lack of interest, and 1 enrolled in an art class for children sponsored by a college.

Each teenager and adult had a choice of several schools, and 4 enrolled elsewhere: one in an adult education class; another enrolled in 2 schools, attending 3 different classes every week; a third in an art school where she won scholarships in ceramics and sculpture; and the fourth, in a life drawing class where he was recommended for a scholarship at the end of the term.

Eleven adults and teenagers indicated that they would enroll in an art class only if the students were deaf or hard of hearing, and since no such classes were available, it was suggested that they form an art club, and 8 did so. Members followed the reviews of art exhibitions, and during the second term, visited The Whitney, Guggenheim, and Brooklyn Museums, as well as the Cloisters. (They visited the Metropolitan and Museums of Contemporary Crafts and Modern Art as members of the class during the first term.) Seven continued to work together in the classroom during the second term. They planned, hung, and were hosts at the exhibition at the end of the term. They plan to continue these activities next year, and possibly expand them to include art films and helping deaf people elsewhere form their own art clubs.

The members are mostly young people in their twenties, although they include a grandmother in her seventies and the 14-year old who was recommended for a scholarship. They include 2 young men who are linotypists; 2 young women who do secretarial work; a senior in high school who will be attending college next year and expects to major in art; a young man who does technical illustrations; another who freelances in commercial art, and the young woman who has scholarships in ceramics and sculpture.

Vocational Opportunities

1. Pilot Questionnaire

This questionnaire was sent to 12 leading potters in various parts of the country. It asked for their views on the chances for gainful employment in their field for a competent potter who had a severe hearing loss. Their names were obtained through the American Craftsmen's Council, a national non-profit educational organization which operates the Museum of Contemporary Crafts in New York City and the Museum West in San Francisco. Potters were chosen because one of the students was particularly interested in ceramics as a vocation.

Of the 9 who responded, 8 felt that vocational opportunities for a competent potter who has a severe hearing loss but can lipread and speak, are as extensive as for those with normal hearing. One felt the opportunities are moderately restricted; none felt they are severely restricted. In the event that he cannot lipread or speak, but can write, 7 felt his opportunities would be moderately restricted, 2 felt they would be as extensive as for those with normal hearing, and none felt they would be severely restricted by deafness. This questionnaire, and the responses, may be found in Appendix C. Eight of the 9 potters added comments and suggestions.

2. Questionnaire addressed to 50 Employers, Craftsmen, and Administrators of Art Schools

In view of the responses to the pilot questionnaire, it was rewritten and the term deafness, defined by a vocational counselor, now referred to as a person whose verbal communication was severely limited: "You can assume that in many cases oral and written communication would be difficult, and demonstration and pantomime would be the most effective means of communication."

This second questionnaire was sent to 50 employers or craftsmen in the fields of woodworking, hand bookbinding, fine printing, weaving, metal crafts, glass blowing, stained glass, and commercial art. Of

38 responses, 35 indicated that a deaf person who was severely limited in language could acquire the skills and knowledge necessary for competence in their fields, 2 were undecided, and 1 did not answer this question; 30 indicated that a deaf person could earn his living in all the categories listed, 1 felt he could not (a furniture designer who wrote "too dangerous") and 6 were undecided. (Appendix C).

In addition, 6 administrators of leading art schools and 5 deaf persons employed in art fields were also asked for their views. None of the deaf persons but all of the administrators replied. Their comments, along with the most interesting comments by craftsmen and employers may be found in Appendix C-4.

Teaching Procedures

Classes were taught in a large room, used for various activities and equipped with folding tables and chairs. A list of supplies, materials and costs may be found in Appendix D.

1. Emphasis on Demonstration and Independence

The first class started with a demonstration of printing techniques: a brayer was rolled over dabs of paint on a palette consisting of a rectangle of formica. Lines were drawn into the paint with a pointed tool, and a print was made by pressing on top of a sheet of tissue paper or onion skin. Different effects were achieved with pieces of sponge, cork, string, and so forth.

Students were then asked to make prints of their own from materials which were within reach and placed on the tables before the class began.

This procedure was chosen for the first class for several reasons. It discourages cautious drawings because poster paint dries on this palette very quickly, and the drier the paint, the weaker the print. It was necessary to work quickly, and with an abundant supply of paper and a variety of colors and materials to choose from, the students who experimented usually

were rewarded with dramatic results. This easy success was intended to give confidence to students who tend to doubt their capacities. The procedure also establishes a studio atmosphere in which each person works independently on a project of his own choosing, rather than follows the instructor's directions.

The second class began with a demonstration which transferred techniques of printing to painting. Instead of formica, palette and brayer, paint was placed on a paper palette and mixed with a painting knife. Five colors only were used in the classes at any time - red, blue, yellow, black and white. The demonstrations consisted of mixing tints and shades of these colors, as well as orange, green, purple or brown.

Students were then asked to mix their own colors on their palettes and transfer them to paper with either palette knife or brush. Each student worked on white paper tacked to a drawing board, prepared and in place before the class began. Some students experimented with colors and shapes, others began to paint representational pictures. The instructor did not interfere with either approach.

In subsequent weeks various tools and materials were introduced. Once demonstrated, they remained available, so that by the end of the term, students chose their materials from a kind of smorgasbord.

It must be emphasized that teaching through demonstration did not require the students to imitate the demonstrator. They were discouraged from imitating and encouraged to use the technique in their own way for their own purposes. Thus when it was shown that red mixed with yellow becomes orange, the demonstration continued; black was added turning the color to brown, then white was added, turning it to beige. The demonstration was presented as experimenting to find out what leads to what, and each student mixed different colors. Imitation is one way of learning, but it is felt that experimenting independently is preferable, particularly for deaf students who in many other areas must imitate in many situations when it would be dangerous or impossible to find out for themselves.

Although the classes had been intended as an introduction to studio experience, some students had a

background in art. Because all worked independently, it was possible to teach individually. Advanced students were shown how to mat prints and how to submit their work to juried exhibitions. (Art magazines and post cards were brought so that they could see how exhibitions were announced and how to apply.)

All students used the same tools and materials, but children and adults used them differently. The painting which won the award in the juried show (page 14) was made with craypas and turpentine. As a matter of fact, this painter (an adult) spent the whole day working in the art class, joining the children in the morning and the adults in the afternoon.

2. Emphasis on Experimentation and Imaginative Subject Matter

In teaching art to hearing students, instructors usually choose the subject matter. With adults, it is customary to work with still life or human models. With children it is customary to assign a topic, talk about it for a while, ask leading questions, and provoke discussions as a preliminary to work.

If it is difficult to discuss a topic in a class of deaf children, it also seems unnecessary. Having started to work independently, they continued to do so, and this was true of adults as well as children. A few sketched subjects in the room from time to time, but most worked from imagination - spontaneously.

Much of the time, all that was required of the instructor was to keep out of the way. On rare occasions, a student did not have a subject in mind and asked for directions. Then a "scribble" was suggested - drawing in large sweeps over the paper without looking, then turning the paper around until an image was suggested, then developing it into a picture. This was done in sculpture as well, squeezing a ball of clay into shapes which eventually suggest a subject of interest.

As an experiment, an attempt was made in each class to assign subject matter.

In the children's class, a message was written on the blackboard and parents were asked to convey it to

their children: "Paint a picture of yourself taking a trip. Can you think of a funny way to travel? by elephant? rocket? roller skates? butterfly? How would you take the trip? Where would you go? How would you look?" Of the 7 children present that day, 3 ignored the message and proceeded as usual with topics of their own. One complied reluctantly and quickly, then went to work on his own topic. Three complied willingly but their pictures were dull compared with their usual work.

In the adult class, the assignment was to draw from observation. One of the students volunteered to model, and the usual procedures of drawing from the model were followed. At the end of the period, the students were asked to vote on whether they would like to have a model again. Eight voted no, and one voted yes.

3. Reproductions of Works of Art

Postcard reproductions of painting and sculpture were used to convey art concepts. They were usually assembled on posters and accompanied by brief texts. For example, one series started with this statement: "These paintings are all about dancers but notice how different they are." Below were reproductions of paintings by Degas, Picasso, Bruegel, Chagall, Klee, Matisse, and an Etruscan wall painting. A second poster was headed, "These are all paintings about the circus, but notice how each painter is interested in a different subject, and each paints in a different way (Daumier, Bambois, Kuhn, Kuniyoshi, Lautrec, Marin, Roualt)!" A third poster stated, "these paintings communicate the attitudes of the men who painted them. The mother in this picture seemed to be mean (Tooker), while the mother in this picture seems to be kind (Picasso). Paint your pictures in your own way."

Art books with good reproductions were also brought to class, and students were invited to borrow them. Only one was borrowed, however, (Metropolitan Seminars on Art) and this student was hard of hearing rather than deaf. No attempt was made to use slides or art appreciation films, since they usually require much talk and a large vocabulary.

4. Films

The most successful films used were a series which demonstrate the use of art materials, tools, and techniques. Although they had sound tracks, they were sufficiently explicit without the sound. The tools and materials demonstrated in the films were set out before the class began, and thus were available to the students as soon as the film ended. They then experimented with the techniques that interested them. The films were frequently rerun on request.

These films are produced by ACI Productions, 16 West 46th Street, New York City. The best, for purposes of this study, and excellent for any purpose, was the film on print-making processes.

5. Field Trips

All students visited a special exhibition, at the Metropolitan Museum of Art, illustrating various steps in making stained glass windows, mosaics, prints, frescos and other kinds of painting. The displays included films, slides, peep-holes, and push-button devices, and were illustrated with examples from the museum's collections. Nevertheless, most of the parents, who accompanied their children, and were able to explain the displays when necessary, felt that the trip had little value. Consequently, the first field trip for children was also the last.

The adults and teenagers, in addition, took one of the museum's acousti-guide tours. An interpreter had been engaged to translate into manual language what he heard on the tape recorder he carried, while the instructor repeated the text for those who read lips. Although the students were interested, the acousti-guide seems to have limited value for the deaf. It is often necessary to stop and clarify the message. This prolongs the time spent in each gallery, and it is impossible to compensate by speeding up the tape or eliminating passages. In subsequent trips the comments were spontaneous, or in reply to questions.

The classes visited the Whitney Museum (Andrew Wyeth retrospective), Museum of Modern Art (Sachs collection of drawings), and Museum of Contemporary

Crafts (contemporary and folk art doll forms from many parts of the world). The members of the art club, which included most of the adult students in the second term class, went by themselves to the Brooklyn Museum (ancient arts of Latin America), the Guggenheim Museum (Klee retrospective), and the Cloisters.

Field trips also included visits to the Donnell Library which has a large collection of art books which may be borrowed, and to the Craft Students League where they observed workshops in bookbinding, ceramics, enameling, jewelry making, weaving, and sculpture in stone, clay, and wood.

6. Written Communications

Typewritten messages were prepared in advance so that each student could have a copy for future reference. For example, two weeks before a field trip, each student received an announcement describing the exhibition, the facilities, and details of time and place. A catalogue was also displayed, as well as literature published by the museum.

Monthly calendars, the blackboard, and written messages for parents were also useful. Examples may be found in Appendix E.

7. Avoiding Anxiety

It was believed that deaf students would have low expectations of their own abilities, particularly those with little experience in art. Consequently, they would need a certain degree of self-assurance before they were ready to test out their capabilities. For this reason, the classes started with printing techniques, as indicated earlier. Almost any design is attractive when repeated at regular intervals, and thus the first efforts were intended to provide a sense of achievement.

Thereafter, the instructor tried to give a minimum of direction but to watch carefully and intercede as soon as a student's lack of skill threatened to thwart his intention, such as struggling with too dry a brush, or with a brush that was too large or too small. A

more effective use of the brush would then be demonstrated, but never on the student's work. Suggestions were made on scrap paper or the blackboard.

Thus the role of the instructor was essentially to encourage, but encouragement did not involve flattery or insincerity. Appreciation of work of a beginner can be genuine. After all, a work of art is valued for more than technical skill alone. Other qualities, such as deep personal involvement, have value, and deserve and receive recognition, as is evident in the wide appreciation of primitive works of art.

Response of Vocational Specialists and Educators

The results of the assessments were communicated to several specialists working with the deaf. The response of some, was skeptical, if not antagonistic.* Thus, when an interim report dealing with employment possibilities was sent to agencies providing vocational assistance to the deaf, one administrator said that the craftsmen and employers who replied to the questionnaire did not know what they were talking about. The typical deaf person, he said, is not interested in art. Students who enrolled in the art classes, like students at Gallaudet College, are atypical. (It will be remembered that the project students had not been selected, but had responded to public notice and been accepted in the order in which they applied.)

A vocational specialist in another agency, said that New York is filled with understanding employers. The problem is a lack of motivation and unrealistic expectations of status or salary on the part of the deaf. Some refuse to travel to another borough because the trip takes too long (compare with time spent traveling to the art classes), others are casual about appoint-

*It should be understood that what is written here is not intended as a blanket criticism of vocational specialists or educators of the deaf. Some, who share the views of the writer, have expressed interest in implementing the findings of this study.

ments and job responsibilities. (Compare this opinion with the opinion of an art school director: "It is never a matter of their being able to learn the skills required. It has always been the prejudice of employers against hiring which makes us chary of accepting more deaf people for training." Appendix C, #40)

A third administrator in a third vocational agency suggested consulting an organization which helps young people set out in business, if an attempt were made to implement the findings. He did not anticipate success, however, because the deaf want white collar jobs and would consider the crafts "blue collar". He did not feel any action by his agency was called for, and showed no interest in the identity of employers who had responded to the questionnaire, nor in the Torrance test.

The children's scores were sent to their schools, together with information about the availability of the Torrance tests. It will be remembered that this test is a measure of creative intelligence in general, not creativity in art, and the fact that eight of the twelve students scored in the 99th percentile suggests that it could identify deaf children or adults whose intellectual potentials are passing unnoticed. To illustrate, one of the students who took the test, a 14-year old youth who had very little language, was in a class for the slowest learners in his school. His score in Fluency was in the upper 3%, in Flexibility - upper 10%, in Originality - upper 2%, and Elaboration - "almost unexcelled". Dr. Torrance described his performance as "the production of a mind of considerable power, the reflection of a high ability to acquire information, form relationships, and in general, to think." Informed of this, the school psychologist commented, "it changes nothing" because "there is a limit to what you can do without language."

CHAPTER IV

DISCUSSION

Low Expectation

There is a recognized tendency among special educators to expect less from the handicapped. At the 1965 White House Conference on Education, they were criticized for lack of expectancy (11, p.565), and the report on Education of the Deaf prepared for the Secretary of Health, Education, and Welfare states: "In summary, there is an urgent need to raise the level of hopes and expectations in the education of the deaf. Deaf individuals and their teachers should not accept a severely limited goal in life....." (7, p.pxviii).

In the project, the only observers who found the deaf students inferior - less independent, sensitive, original, and expressive than hearing students - were the 2 who taught only the deaf. Most of the other 9 observers taught both the deaf and the hearing, and most taught art (page 12).

Some art educators also expect less from the deaf. One, asked why there were no deaf students in her class although they were in other art classes in the school, replied that her students worked independently, whereas deaf students need direction (Compare with behavior described on page 21).

Vocational counselors seem to find careers such as packing or operating power machines particularly well suited to the deaf who do well in repetitive work. This could indicate patience rather than dullness. Tradition also seems to be a decisive factor. One counselor, asked how he decided whether a particular occupation would be suitable, replied that the first step was to find out if a deaf person has done the work before.

It is a great temptation to draw conclusions from the obvious, as Meyerson has pointed out. Among the ancient Greeks it was obvious that the deaf were ignorant, and it was concluded that they could not learn. "Within the time of living men, it was obvious that the deaf could not speak. The did not was interpreted

to mean could not. We know better today, but the same point of view rises repeatedly in every-day forms." (5, p. 140).

Like most human beings, the deaf tend to do what is expected of them, but one of the students in the project did not. Hard of hearing, she had attended a school for the deaf as a child, and graduated from a high school for hearing students the summer before the project began. Her ambition was to study ceramics and to teach art to deaf children, but she had not been in the high school academic program, and could not qualify for art schools with academic requirements. She was advised by a governmental vocational counselor to learn beauty culture or clerical work, in spite of her difficulty with written and verbal language, but she declined. The following November, she was given aptitude tests, and the following May was advised that she could become a laboratory technician. When again she declared her interest in art, she was told it was unrealistic. She was advised to read a book which describes various occupations, then write a letter specifying the kind of work she wanted to do and why.

In the meantime, she enrolled in the project class for adults, and was engaged as the assistant in the class for children. She was excellent with children, enthusiastic, competent, quick to learn, and never missed a class. She also applied to an art school which specializes in ceramics and does not have academic prerequisites. She brought examples of her work to the interview, and was not only accepted but was awarded scholarships in both ceramics and sculpture. She continued throughout the year in both project and art school. This summer she has a working scholarship in the school, extending through the fall. She will help operate the kiln and help teach (hearing) children. The director describes her as "exceptionally talented, takes instruction exceptionally well, is outgoing and works well with groups." Independent of her assigned vocational counselor, she has obtained employment four hours each weekday as a teacher's helper in a summer program in a school for the deaf. Her duties include teaching an art class twice a week. Next fall she will be employed as one of the teachers in the Saturday children's class at the New York Society for the Deaf which will continue the art program begun in the project. She was also elected president of the Art Club.

To many people who work in the visual arts, it is not surprising to expect ability from the deaf, as the replies to the questionnaire indicate. Artists and craftsmen work alone in a studio much of their time, and their presence is not an element in evaluating their work. They do not meet the juries, nor do they have to meet the people who sell or buy their products. What matters in art is talent, and deafness need not interfere. Artists and craftsmen think visually much of the time. They know that high level thinking can proceed without language, and that a deaf person whose reading ability may be at the fourth grade level, may nevertheless be highly intelligent.

What is surprising is not that the deaf could be productive in the visual arts, but that people who teach and counsel them and who have enormous influence on their lives not only seem to expect little from them, but seem reluctant to accept the possibility that they may have creative and artistic abilities. Perhaps this is because such advisors are acutely aware of language deficiencies, and being highly verbal themselves, may tend to think that language and intelligence are one. There is considerable evidence to the contrary. Furth, who reviewed over 50 empirical investigations, concluded that intellectual ability is largely independent of language (2, p.51-54). The following statement was made by Albert Einstein: "The words or the language as they are written or spoken do not seem to play any role in my mechanism of thought. The psychical entities which seem to serve as elements in thought are....in my case, of visual and some muscular type. Conventional words or other signs have to be sought for laboriously only in a second stage." (Arnheim, 1965, p.2).

Misconceptions about Art

Some people who work with the deaf have little understanding of the value and meaning of the visual arts. Two vocational specialists are convinced that artistic ability is a matter of hand/eye coordination, and it was because one of them was so surprised to learn that craftsmen attend college that academic backgrounds were included with the questionnaire replies - when they were known - in Appendix C.

Universities with programs in Special Education sometimes offer a course in how to teach art to the

handicapped, usually the mentally retarded. In at least 2 institutions, these courses are taught, not by art educators, but by Special Educators who seem devoted to scissors, construction paper, and paste. On the other hand, there is a painter who teaches in Rhode Island State School for the Mentally Retarded. The paintings and mosaics of his students are so remarkable in aesthetic quality that they have been exhibited widely on their own merits. Mr. Fontaine, the instructor, does not condescend to his students. Asked whether he feels frustrated working with retardates, he replied, "I would rather work a year with the most recalcitrant retardate than try to present a new idea to a normal adult with a closed mind." (1, p.11).

Some educators of the deaf see art as a vaguely enriching kind of busywork, possibly because they have little experience with art in their own educational backgrounds. Some seem to see art as a threat to oral methods of instruction and a return to the manual, although art has nothing to do with methods of teaching language. In one school, it seems to be used for the purpose of teaching language. In the art class observed, students submitted their homework - several pages of new words each used appropriately in a sentence - then the words were reviewed with questions, answers, and general discussion. Finally, students were asked to draw a still-life from imagination using pencil, ruler, and eraser. In other schools for the deaf, the writer has observed practices described on page 2 and elsewhere (8, p. 160-177), which are usually disapproved by art educators today.

Concepts of Art Education

The approach to teaching deaf students in this project was essentially the same as in teaching students with normal hearing - to encourage inquiry, not just to transmit information. It is believed that art techniques and skill are means, not ends. Teaching a student HOW TO is not the goal, but the means of helping him become aware of aesthetic qualities and articulate in expressing his ideas and experiences through visual forms.

This approach to teaching is not new, nor is it limited to the visual arts. It has been formulated by

many writers in different fields of education, and it is not necessarily the approach of art teachers everywhere.

The value of an art program depends on more than the instructor's knowledge of art. If his goals are restricted to transmitting techniques, if his procedures are imitative and his expectations low, then a student who has high potential may show little evidence of what he is capable of achieving.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Based on evaluations made by educators and vocational specialists, and on classroom experiences, the author offers the following observations:

1. The deaf have as much aptitude and interest in the visual arts as do the hearing.
2. A talented deaf person can be expected to succeed as a craftsman even if he is severely limited in both oral and written language.
3. People who work with the deaf, and who have little understanding of art values, tend to underestimate the aptitudes, interests, and vocational opportunities for the deaf in the visual arts.
4. Art techniques and concepts can be conveyed to deaf students, without language, by means of demonstrations, films, reproductions of works of art, and field trips. The teaching procedures which seem to be effective are those which encourage personal subject matter and independence.

Of course, these observations cannot be accepted as conclusive, since they are based on a small sample which may not represent deaf people in general. The tentative conclusions, therefore, are offered here as the basis for and encouragement of further research on the artistic abilities of deaf persons. With that thought in mind, the author would suggest that the following will be worth follow-up:

1. Investigation of local economic opportunities for the deaf in the applied arts, particularly in woodworking, ceramics, and hand bookbinding.
2. Consultation with art educators and craftsmen in order to develop wider education for deaf children and adults, and to develop predictive tasks for adults who may have aptitude but little art experience.

3. Inclusion of the Torrance Tests of Creative Thinking among the tests administered in schools for the deaf and in agencies which provide vocational assistance.

4. Establishment of a sheltered workshop where deaf adults could learn and produce handcrafts, and obtain help with the verbal communications needed in selling craft products.

If this study provokes further investigation, one of its major goals will have been achieved.

CHAPTER VI

SUMMARY

Since deafness imposes severe restrictions on employment, there is a recognized need for information about the aptitudes and interests of the hearing-impaired.

The objectives of the project were to assess aptitudes, interests, and vocational opportunities in the visual arts, and to identify effective methods of teaching art. Schools for the deaf rarely emphasize art education, and vocational specialists usually discourage interest in art. Consequently, what may appear to be lack of ability, may be, instead, lack of opportunity to develop ability.

A total of 54 deaf and hard of hearing children and adults attended experimental art classes. They were not selected but were accepted in the order in which they applied. Aptitudes were assessed by means of 3 rating scales and the Torrance Test of Creative Thinking; Interest by means of questionnaires; Vocational Opportunities, by means of questionnaires addressed to craftsmen, employers, and administrators of art schools; Teaching Methods, by means of experimentation.

The assessments, as well as classroom observation and comments by educators and vocational specialists, were interpreted as supporting the following conclusions:

1. The deaf have as much aptitude and interest in the visual arts as do the hearing.
2. A talented deaf person can be expected to succeed as a craftsman even if he is severely limited in both oral and written language.
3. People who work with the deaf and who have little understanding of art values tend to underestimate the aptitudes, interests, and vocational opportunities for the deaf in the visual arts.
4. Art techniques and concepts can be conveyed to deaf students, without language, by means of demonstrations, films, reproductions of works of art, and field

trips. The teaching procedures which seem to be most effective are those which encourage independence.

It was suggested that further investigations might be made into local economic opportunities in the applied arts, particularly in woodworking, ceramics, and hand bookbinding, and into the feasibility of establishing a sheltered workshop in the arts. It was also suggested that the Torrance Test of Creative Thinking be included among tests administered to deaf children and adults, and that art educators and craftsmen be consulted in order to develop predictive tasks and wider education in the visual arts for the deaf.

REFERENCES

1. Fontaine, John H. "Art for the Mentally Retarded", Rhode Island School of Design Alumni Bulletin, November, 1961. pp. 4-11.
2. Furth, Hans G. "Research with the Deaf", Volta Review, 68:34-56, January, 1966.
3. Gaitskell, Margaret R. "Art in the Kindergarten", Education and Art, Edwin Ziegfeld (ed.) Paris: UNESCO, 1953. p.39.
4. Lampard, Margaret R. "The Art Work of Deaf Children", American Annals of the Deaf, 105: 419-423, November, 1960.
5. Meyerson, Lee. "A Psychology of Impaired Hearing", Psychology of Exceptional Children and Youth, William M. Cruickshank (ed.) Englewood Cliffs, New Jersey: Prentice-Hall, 1955.
6. Myklebust, Helmer R. The Psychology of Deafness. New York: Grune and Stratton, 1960. 380 p.
7. Report of the Advisory Committee on the Education of the Deaf in the United States, U.S. Department of Health, Education, and Welfare, Office of the Secretary, Washington, D.C., 1965. 103 p.
8. Silver, Rawley A. The Role of Art in the Conceptual Thinking, Adjustment, and Aptitudes of Deaf and Aphasic Children, Ed.D. Project Report, Columbia University, 1966. University Microfilms, Inc., Ann Arbor, Michigan, #66-8230. 217 p.
9. Torrance, E. Paul. Guiding Creative Talent. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962. 278 p.
10. Torrance, E. Paul. Torrance Test of Creative Thinking, Figural Tests, Forms A and B. Personnel Press, Inc., Princeton, New Jersey, 1966.
11. Volta Review, report of proceedings at the White House Conference on Education. October, 1965. p. 564-5.

APPENDIX A

COMMENTS BY SIX ART TEACHERS WHO EVALUATED PORTFOLIOS

Elementary school art teacher, candidate for masters degree:

In the case of I would have assessed his work as more creative if the use of language in the drawings was not so prominent. I felt the words were substitutions for an image.

A college instructor, student-teaching in high school, doctoral candidate:

I have interpreted a "5" as of the quality to major in art in college and do well.

A student who has more experience will have greater sensitivity, and expressiveness, and originality.

A college instructor (2 years) who has taught in professional art school (2 years), B.S., M.A., doctoral candidate:

For a few of the portfolios, the work was uneven in indication of aptitude and quality - for these it is somewhat difficult to determine placement - I tried to average.

Art teacher 13 years, candidate for Masters degree:

In evaluating quality of a 4 and 5 you may find they are close together in meaning - some people would hesitate to use 5s.

Elementary art teacher $4\frac{1}{2}$ years, doctoral candidate:

It is difficult to mark certain portfolios, not knowing the amount of training each child has had. It would also be helpful to know the background and home environments of the children.

Elementary art teacher 8 years, M.S. doctoral candidate:

Very difficult to evaluate without knowledge of the child or observing the creative process.

APPENDIX B

QUESTIONNAIRE FOR PARENTS OF CHILDREN
WHO ATTENDED THE PROJECT ART CLASSES

It takes ____ minutes to reach this class from my home.

Name _____

PLEASE CHECK THE REASONS WHICH BEST DESCRIBE WHY YOUR
CHILD HAS BEEN ATTENDING THIS ART CLASS.

10 one of his chief interests is drawing or painting.
5 his chief interest is drawing or painting.
14 he enjoys drawing or painting.
11 I feel he should have more art experience than he
receives at school.
5 his school does not have an art teacher for his
grade.
6 I've had difficulty finding an art class which will
accept him.
0 I've had difficulty finding an art class which is
satisfactory.
____ other.

COMMENTS:

APPENDIX B

QUESTIONNAIRE FOR 16 TEENAGERS AND ADULTS WHO ATTENDED THE PROJECT ART CLASSES

It takes _____ minutes to travel between my home and this class.

Name _____

WHICH OF THESE REASONS BEST DESCRIBES WHY YOU CAME TO THIS ART CLASS? CHECK AS MANY REASONS AS APPLY.

- 9 It seemed a pleasant way to pass the time when there was nothing better to do.
- 9 I thought painting or sculpting might be an interesting hobby.
- 7 I was thinking of a career in art or a related field.
- 9 I paint or sculpt at home and wanted some instruction.
- 6 I found it difficult to go to art classes.
- 12 I wanted to learn more about art classes.
- 4 I found it difficult to go to museums alone or with a friend.
- 9 I wanted to learn more about museums and exhibitions.

WHICH OF THE FOLLOWING, IF ANY, DESCRIBES YOUR PLANS AFTER THE CLASS ENDS THIS MONTH?

- 4 I may enroll in an art class elsewhere.
- 3 I have already enrolled in an art class elsewhere.
- 11 I would enroll in an art class only if the students were deaf or hard of hearing.
- 5 I expect to paint or sculpt at home.
- 9 I am thinking of a career in art or a related field.

COMMENTS:

APPENDIX C

Pilot Questionnaire sent to 12 Potters

I would say that vocational opportunities for a competent potter who has a severe hearing loss but who can lipread and speak

8 are as extensive as for those with normal hearing.

1 are moderately restricted by deafness.

0 are severely restricted by deafness.

If he cannot lipread or speak but can write, his opportunities

2 are as extensive as for those with normal hearing.

7 are moderately restricted by deafness.

0 are severely restricted by deafness.

I have worked with or know of a deaf craftsman or artist 5.

COMMENTS:

Questionnaire sent to Handcraftsmen and Employers in
Various Art Fields:

FIELD EMPLOYER 13 SELF EMPLOYED 22 EMPLOYEE 12

(The term "deaf" as used here refers to those hearing impaired persons whose verbal communication is severely limited. You can assume that in many cases normal oral and written communication would be difficult, and demonstration and pantomime would be the most effective means of communication. At issue is whether verbal communication is a crucial aspect of the work in your field.)

I. EDUCATION IN THIS FIELD

A deaf person could 33, could not 0, acquire the necessary skills and knowledge.

II. EMPLOYMENT IN THIS FIELD

A deaf person could 27, could not 1, earn his living as a producing craftsman, designer, or artist.

A deaf person could 27, could not 0, earn his living producing the designs made by others.

A deaf person could 27, could not 0, earn his living working under supervision.

The demand for this product is sufficient 19, is insufficient 6, for the average hearing person to earn his living solely by his output.

COMMENTS:

If you know a deaf craftsman, designer, or artist, would you be willing to forward one of these questionnaires to him? If so, please use the reverse side for your name and address (or his).

Responses to Questionnaires Addressed to Craftsmen,
 Employers, and Administrators, Regarding Vocational
 Opportunities for the Deaf

OCCUPATION	NO. ASKED	NO. ANSWERED	EMPLOYMENT ¹			EDUCATION ²			DEMAND ³		
			Yes	No	?	Yes	No	?	Yes	No	?
hand book-binding	5	4	4	4		4			3	1	1
metalcrafts	6	4	4			4			2	1	
handweaving	6	4	3		1	4			1	1	2
blown glass	5	5	3		1	5			1	1	3
stained glass	7	4	3		1	3		1	3	1	
woodworking	9	7	5	1	1	5		1	5		1
fine printing	2	2	2			2			1	1	
restoration	1	1	1			1			1		
commerc. art	2	2			2	2			2		
store mgrs.	3	2	1			1			1		
ceramics	4	4	4			4			2	1	
	50	38	30	1	6	35	0	2	22	6	7
ceramics	12	9									
store mgrs.	1	1									
admin., art schools	6	6									
deaf artists, craftsmen	5	0									
	74	54									

¹Can a deaf person earn his living as a producing craftsman, designer, artist?

²Can a deaf person acquire the necessary skills and knowledge?

³Is the demand for this product sufficient for the average hearing person to earn his living solely by his output? (Responses to this question indicate that the question was ambiguous. As 2 responses pointed out, a successful hearing craftsman is not "average" but talented.)

⁴Qualified answer or answered with question mark.

CERAMICS

Founder, vice-president, and designer-director of a factory in the South which sold \$1,000,000 worth of stone-ware between Sept. 1966 and Sept. 1967:

1) I should think that teaching people with a hearing impairment might be something like teaching in a foreign country in a situation where you do not share a common language. I did this in Taiwan, where I spent 4 years. Before my Chinese became at all proficient, I communicated almost solely by sign language and by demonstration, and we understood each other quite clearly.

An ability to read and write is necessary for most of the jobs in our ceramic plant: at least it is a big help.

Potter from another southern state who is represented in many museum collections, teaches in a university, M.A. degree:

2) I do not believe deafness would be a deterrent in learning craftsmanship in ceramics. On the other hand I must qualify my positive reply by the fact that artists, designers, and craftsmen are successful economically only when the individual quality of their work is attractive to the buyer. To make a living from making crafts is becoming more common but it is not a wide open field in which anyone - deaf or not - can rush and make a success. The success has to do with everything else but hearing.

Instructor in high school and college in an eastern city:

3) With proper training, it seems obvious to me that a talented deaf person can function and succeed as a ceramist. Sales or dealings with the public are relatively minor problems that may easily be overcome - personal selling agents or even a central organization like the Lighthouse for the Blind are possibilities.

The cogent problem lies in the field of teaching and training these people. Small classes and especially patient art teachers are among the necessary ingredients for teaching the deaf.

A production potter from the West who is also a college teacher and designer for industry:

4) I believe that even a totally deaf person could make a living at any craft, pottery especially, since it is mostly a matter of fine feeling in the fingers and a concept of form in the mind. You do not need words for that. Learning of course might take a little longer due to the fact that the teacher might have to do with the actual example what he might otherwise explain with words - but that is not an insurmountable obstacle.

Personally I would be willing teach such a student if he or she showed any creative talent in that direction.

A full-time production potter from an eastern state who has taught in art schools and received many awards. Bachelors degree and graduate study:

5) It seems to me that for one who is deaf, work in the crafts (whether potter, weaving, woodworking, metalwork) would be the best kind of vocation. Handwork relies on all the other abilities, except hearing. Of course, studying, and even being gifted in the crafts, does not lead directly to employment in the world. Small handicraft shops rarely hire help, and it is a large thing to set up one's own shop and make and sell enough ware to make a living. If some institution wanted a program of useful and fulfilling work for deaf people, a serious attempt to make craft workshops could be a good thing.

If the person can lipread and can deal with the world he could study in the good schools of the country.

A full-time production potter from a southern state who has taught on a college level and received many awards; M.F.A. degree:

6) As a producing craftsman, I find that it is important to be able to communicate with shop-owners, etc. Of course someone with a hearing loss could have someone do this for him.

Most of my time is spent working in my studio as is the case for most producing craftsmen.

Teacher at a university in a western state who has had at least 9 one-man shows, received many awards, M.A. and M.F.A. degrees:

7) I had a girl student (from Pomona College) who was outstanding.

I hope there is a future for deaf potters as I seem to be heading that way myself.

A full-time production potter from New England, formerly taught at a university, at least 7 one-man shows:

8) I see no reason for restrictions of any kind. I have had one-armed students who did quite well. Working with clay is mostly a feeling, and in some cases has little to do with hearing. Almost every experience can be visual. In my opinion, much can be done with students in clay without one spoken word. In fact most teachers use too many words.

Husband and wife, potters from New England, represented in museums and 2 shows, B.F.A. and M.F.A. degrees:

9) No reason why deafness should prevent success in any artistic - visual arts - commercial arts field. Only possible handicap in pottery would be difficulty in selling to stores, or impossibility of teaching. However, there are endless opportunities for trained craftsmen to work for other craftsmen as producing studio potters, silversmiths, woodworkers, etc. where they would not have to go out and sell their own designs but would have to, perhaps, content themselves with the less creative aspects of the vocation - that is, producing the designs of others. HOWEVER, this difficulty could be surmounted if a person had a distinctive talent. With some effort he could surely find a store, agent, relative, or representative of some sort to do his selling for him. A gallery perhaps. The business of selling is, unfortunately, still very difficult even for those of us who do make a living without teaching. (Additional paragraph recommending schools and individuals.)

Potter from a southern state who trains apprentices, received many awards:

10) All across the country there is a great need for the production of well-designed, beautiful craft objects. There is a growing market, reflective of the increasing cultural awareness of the public in general. Of course the deaf can participate in this situation and become gainfully em-

ployed - either as an individual producer or in a small workshop. But it would require all the long years of training that is required in any occupation dependent upon the development of the human senses.

The crafts can be an important opportunity for the deaf individual. There are no stereotyped channels and methods of approach and persons can adapt working habits to their own peculiar needs. This is a wonderful thing and few fields in our "organized" society can offer such individual flexibility. A craftsman is only limited by his own inability to respond, adapt, and create. If his sensibilities are free, through creative training, there is no limit to the possibilities.

But isn't this what ALL of EDUCATION is about?

Ceramic sculptor from New England, who has taught in colleges, B.A., M.A. degrees:

11) One must keep in mind that there are very few opportunities (vocational) such as you are suggesting for any craftsmen in this country, handicapped or not. This is a difficult field to prosper in and a handicap such as deafness would be just one more problem to live with. It takes extraordinary talent plus loads of hard work, plus savvy - in art, business, etc., etc., - plus breaks. I would guess that a really talented person could get through - and should be encouraged but a lesser talent could not.

HAND BOOKBINDING

President, Guild of Book Workers; taught at university 17 years, in art school since 1961. B.S. degree:

12) Assuming that deafness was the only handicap, I can see no reason why a deaf person would be unable to learn the necessary skills or earn his living in any of the areas which you mention. The inability to communicate easily would make it nigh impossible for him to set up his own shop or freelance, unless he had continuous help from some source.

In the field of hand bookbinding there are actually few job opportunities. Most professional

binders operate very small shops and employ little if any help. A deaf person properly trained could do most of the work in a hand bookbinding shop. The significant question is, once trained where would he turn for a job? In a shop that employs only 2 or 3 people, a deaf person who was unable to communicate verbally or in writing would present something of a problem.

Certainly deafness, as such, is in no way a handicap to a designer, or a craftsman as far as the work itself is concerned.....

If the N.Y. Society for the Deaf is really interested in developing job opportunities in the areas which you mention, they should first find the money to pay for the training of a selected number of deaf people in the various areas; they should then set up shops which offered both professional services to the general public and on-the-job training to other deaf people.

In the field of hand bookbinding such a shop would, I am sure, in a relatively short time get all the work it could cope with.....once afforded the opportunity to become proficient, their handicap would become insignificant.

Binder to a famous library in an eastern city, Bachelors degree:

13) The overhead is the big problem. However, there is a lot of repair work to be done.

There were several deaf and two mutes when I experienced some working time in the Bibliotheque Nationale bindery in Paris. They got along very well indeed. Teaching could be done by very clear diagrams and patient demonstrating.

A good calligrapher could earn his living working in his own living room.

Please contact....., President of the Guild of Book Workers, a group of binders, calligraphers, and paper designers within the American Institute of Graphic Arts.

Master Bookbinder and Lecturer at College in midwest:

14) I see no reason why a deaf person should be unqualified for the craft of bookbinding if he or she likes to work with his hands and has the patience to learn the various steps in the work.

I became interested in binding in my early 20's after a severe attack of arthritis in my hips that left me with the necessity of using crutches ever since. For over 30 years, I mainly supported myself and then my wife by doing my work in the basement workshop of my home. Having become fairly proficient at it, I had no trouble finding work to do, not only for Pittsburg customers but also for many out of town. Then in 1961, Carnegie Institute of Technology constructed a new building for its libraries and I was asked to take over the binding and restoration work on the valuable old books in the Hunt Botanical Library. My title on the faculty is Master Bookbinder and Lecturer in Graphic Arts.

I mention all this because I believe there are many handicapped persons (like myself) who could be much happier having a training in a much needed craft such as bookbinding.

METALCRAFTS

Silversmith from an eastern city, designs flatware and hollowware for industry, teaches at college, educated in Denmark:

15) I do think that a deaf person can be just as well educated in any of the craft fields and even sometimes better than a hearing person. The difficulty comes later because to be a good craftsman is not always enough, one must be a good salesperson and a promoter of the Arts to be a success.

Silversmith and industrial designer from New England, M.A. degree:

16) I am a designer-silversmith for a manufacturer, and I think a deaf person could conceivably do the same. It takes a lucky person to make a go of silversmithing in his own shop - most I know supplement by teaching, or such. I don't think a deaf person would have any harder time at this than a hearing person. If one has ability, I don't think being deaf would keep one down.

HANDWEAVING

Chairman of Department in college; exhibited widely in U.S.A. and Europe:

17) I teach weaving at a college of Arts and Crafts. Since this craft can be learned through the means of observation (visual) and since very good literature is available, I do not see any reason why a deaf person could not master the craft.

Designs and executes upholstery, clothing, and drapery fabrics, sells to mills and retail stores, many awards, own shop and studio in southwestern state:

18) I feel that deafness would be no handicap in the field of handweaving. Possibly it would mean more time in training but would not affect a person's ability to do the job. As to earning a living in handweaving, it is possible but it takes long hours of handwork at the loom to do it, whether a person is deaf or not. In my own studio a deaf person who was a good craftsman-weaver would be an asset because he would not be distracted by the other conversation going on around him in the retail part of it.

A fabric designer from an eastern city:

19)There are some master designers who could be deaf or not - it doesn't much matter. There are studio assistants who must take a great deal of verbal instruction; the handicap here is much more severe. Employment could only be in special cases. In the area of ceramic, jewelry, glass blowing (but not weaving) there are designer/craftsmen who do make a living by their own production. However, there are only a few; most of them have probably had to supplement their income by teaching.

Then there are artisans who simply do manual work in a craft area -- at a sub-standard wage. This area is quickly vanishing.

I would summarize by saying that this is not an area to encourage people to come into. It is for exceptional people who can't help themselves succumbing to a precarious livelihood.

From my limited experience with the deaf and other handicapped people I have found that it is not their prime handicap that was the main prob-

lem; it was their being defensive and over-protected; this usually made them unsuitable as employees.....

GLASS-BLOWING

Designer for industry from an eastern state:

20) In my experience I have not known of a deaf glass worker. However, I am certain that a qualified (desire, aptitude, etc.) person could become a glassworker. The handcraft industry is relatively small and is located, generally speaking, in specific geographical areas. West Virginia is one such area. There is an apprentice system, though not formal. It usually takes between 5-10 years to train a competent glassworker, and since it is a skill of varying degrees (16 levels) those with the most experience and longevity occupy the "master" positions.....

I have one experience with a "deaf" craftsman. He was a talented, capable craftsman who definitely proved to me that he had, indeed, no handicap. (potter).

Assistant Professor in a western university:

21) Yes, a deaf person could acquire the necessary skills - I don't believe the impaired person should be counted out - but making a living? It's hard even for the 'others'. There would be a question as to individual requirements within a factory situation.

As an individual craftsman earning his own living - as long as he can fill the economic gap, he should be able to do the work.

Self-employed full-time glass-blower from New England:

22) Since learning the skills of a craft and developing aesthetic judgment are essentially visual, there seems no reason why a deaf person should have any difficulty learning them in a properly geared educational program, if he has some talent.

In general, although the market and interest in crafts is growing rapidly, there are relatively few opportunities for employment.....the kind of

work I am doing is an uncertain business as a studio craft for anyone. There are, however, many glass craftsmen working individually as laboratory glass blowers or using lampwork techniques as a novelty or art form.....I feel it necessary to emphasize that glass working requires considerable technical knowledge and presents greater chemical hazards than any other craft practiced on a studio scale.

STAINED GLASS

Vice-President of studio which also trains apprentices in mid-west:

23) The fact of deafness would be a distinct handicap in the matter of communication, but if a person were sufficiently talented he could become a stained glass worker, although it would not be easy. We have a deaf mute in our studio but he was not able to become an apprentice and learn the craft, because of his handicap. He fires the kiln, a task that can be handled successfully almost alone. However, I would not want to say it could not be done.

Chairman, same studio:

24) We have had 2 other deaf mutes working in the studio. One was a talented stained glass artist painter and the other a lady who did laying out of the glass on easels for the painters and similar work.

There is a real opportunity for the handicapped in this craft. The boy we have now has a worse handicap than being a deaf mute and that is his temperament which makes his integration difficult.

Self-employed designer in an eastern city:

25) This is an art form that many otherwise talented artists with no deafness problem simply have no "feel" for. It is very difficult therefore to estimate the effect of deafness as such.

Officer of Stained Glass Association of America:

26) Very definitely a deaf person could undertake training and earn his living as a stained glass craftsman. There is nothing requiring or making it necessary for a person so employed to have his hearing.

In the craft though, are two phases to be considered: on the one hand is the artist/designer who must have a definitely high degree of talent for art AND GLASS (something which cannot necessarily be learned): on the other hand there is the craftsman who assembles the window-panel. This phase can be learned and our Association, in conjunction with the Federal Government and the unions involved, do sponsor training programs.

WOODWORKING

Self-employed craftsman from New England, teacher in art school:

27) Assuming a person had an aptitude for work with the hands and the ability to visualize in three dimensions, then deafness is not problem. I frequently talk to students in a noisy workshop and must use a minimum of words relying instead on demonstration.

Employer, manufacturer of furniture, antique restoration in an eastern city.

28) There would seem to be no reason why any person of normal intelligence or better could not become a skilled, productive and completely self-supporting artisan, regardless of his hearing ability, although I do feel the deaf would have a more difficult task in learning.....

Since there is now, and apparently will be a growing, shortage of skilled craftsmen, I can only feel that you would be performing a constructive service by encouraging greater vocational training in this field. Our own program of apprentice training draws on a group of foundation-supported boys from the vocational high schools in New York, and has had a certain amount of favorable attention. Should further details be of interest, we should be happy to hear from you.

A furniture designer from west coast:

29) There is a high demand for the type of furniture that I design and make - the design and quality is of primary importance.

Antique restorer, employee in large firm in eastern city:

30) If a deaf person was willing to serve the time necessary as an apprentice, he could develop into a good antique restorer despite the handicap of being deaf.

Employer: furniture manufacture, repair, and finishing (oral comment):

31) (The demand for a class A craftsman is more than enough. Most good craftsmen are taught in Europe. Those who have come to the U.S.A. are often reluctant to train apprentices. Consequently, this skill is known largely to older men. The need for skilled craftsmen is likely to become acute within 10 years as the older men retire.)

FINE PRINTING

Owner of a press (oral comment):

32) (The difference between this kind of printing and commercial printing has more to do with the care with which the work is done than with the kind of work. The need for really skillful workers is great. Deafness would be no obstacle since communication is primarily by means of visual symbols.)

Owner of a press (oral comment):

33) (Although a deaf worker might be a highly technical artisan, the field is probably too small and rarified.)

COMMERCIAL ART*

Owner of an advertising firm:

34) Verbal communication is vital in advertising - particularly in an art department. A very large agency could find a specific job for a deaf person. However, I think that it is unlikely that they would.

Self-employed graphic artist:

35) Unless such a deaf person were unusually talented, it would be extremely doubtful if he might find employment in a busy studio or ad department purely because of the difficulty in communicating sometimes shadowy or mystical or emotional feelings which can best be expressed verbally - frequently there must be some give and take between client and artist, boss and artist, designer and mechanic. Not insurmountable but difficult.

I personally cannot be too hopeful that a deaf artist could function in a creative way because sound and fury is so much a part of the business.

This is not necessarily so in the area reserved for the artist-mechanic, the guy who does the paste-ups, the squaring up, the ruling in, the preparation of the final art for production...

RETAIL STORES WHICH SELL HANDCRAFTS

Questionnaires were sent to the presidents or directors of four leading stores. Three replied:

* It may be useful to add here that two of the adult students in the art class are employed in this field; one is a girl who does paste-ups, the other is a young man who has been a commercial artist for 7 years, 5 of them for one firm. He was between jobs for a while and spoke of the difficulty of communicating and the pressures of meeting deadlines. He lipreads, reads, and writes well, and of course is quite talented. He attended a school for the deaf until high school, graduated from a hearing high school, and attended an art school where he received the director's award for technical illustration. The director of this art school comments below.

36) A craftsman does not have to "hear". He must only have the natural instinct to create and design. In many cases crafts are taught to students who have had no experience in this field, but who want to learn. I believe the craft field would be ideal for the deaf.

37) Personally I definitely feel that there are many of your questions relating to craftsmanship where a deaf person should be able to fit in. However, our firm does no manufacturing or designing whatsoever.

We are primarily a retail store selling directly to individual customers and we depend on imported merchandise to a very large extent.

38) We do not employ craftsmen but we do sell their work. I see no reason why deafness should in any way interfere with the individual's ability to learn, or pursue, the crafts. Often we do get inquiries from craftsmen who are looking for apprentices. We would be happy to recommend someone who is deaf or hard of hearing.

ADMINISTRATORS OF ART SCHOOLS

Two of the institutions referred to here are accredited and confer academic degrees. The other 3 do not confer degrees but are widely known, one as a school for commercial art, the second as a school for fine art, the third as a school for craftsmen.

Dean of a College of Fine and Applied Arts:

39) We have a student in our program currently who is deaf.....of the graduates, two are teaching in schools for the deaf and one, who graduated last June, intended to set up a workshop of her own (she is a potter).....

In general, I would say that the opportunities for the hard of hearing, in the crafts, are as extensive as for those without the deficiency. Because of the nature of the work performed a hearing difficulty is less of a handicap to the designer or craftsman than would be the case in most vocations.

Of the various crafts, I would think that they would be approximately equal in terms of the vocational opportunities they provide, with Woodworking

and Furniture Design perhaps being slightly better than the others because of the extensive use of wood by our society.

.....I have had an interest in the deaf for some time, merely because they are as intelligent and as talented as other members of the society, by and large, but have had no opportunities beyond the secondary school unless they were asked to compete with students in full possession of all their senses.

Director of a school of commercial art:

40) The questionnaire forces a positive reply, but it does not go to the heart of our curriculum. We offer many branches of commercial art,.....for some of which a deaf person could be trained, and we have in the past done so.

It is never a matter of being able to learn the skills required. It has always been the prejudice of employers against hiring which makes us very chary of accepting more deaf people for training.

(Compare this comment with comment by specialist in employment of the deaf, page 25).

Assistant Director of school for fine arts (oral comment):

41) (A deaf student could acquire the necessary skills, and deaf students attend the school, but only one student is known who may have succeeded in making a career in fine arts. Financial success is extremely difficult even for talented hearing artists.)

Associate Dean of Art School (oral comment):

42) (The program here is geared to art directors - a highly competitive market. The design area needs verbal exchange, but the decorative area, where patience is important, could give the deaf student an advantage over the hearing. Opportunity to set one's own pace is an important factor.

There have been deaf students here, most of whom drop out because the program is difficult. There was one student, however, who graduated, was placed as an art director, and is highly successful. A hearing student was employed to take notes for him

in class, and by his Junior year, the deaf student was doing as well as anyone else.

A deaf person might have a greater chance for success in a small town where competition is less keen.)

Acting Director of Placement Service in above art school (oral comment):

43) (If a deaf person has sufficient ability and motivation, he can be placed in a job; if he has inferior ability, he is likely to blame his handicap for his failure.

Is acquainted with 2 deaf students: a young man who dropped out his first year but was placed with an architectural firm as office boy, and continued to attend art school at night. He has been placed twice since, each time with an improved position and increased salary. He is now a junior draftsman and still attends evening school. The second student is a girl who is a senior majoring in graphic arts. No difficulty is expected in placement. Feels there are opportunities as well, in industrial and interior design, and in architecture.)

Director, Art School for Crafts:

44) Knowledge and skill may be acquired by observation of demonstrations and from planned reading.

Assuming that a deaf person has talent and is given an opportunity for direct apprenticeship training, he could attain a level of professional specialization which would enable him to produce a desirable and marketable item which could be promoted by some selling agent.

Producing designs by others involves too much refinement of communication which would be too demanding for a deaf person; working under supervision where continuous visual example could be stressed would be possible. Any craft item designed and executed at superior quality level would be in demand.

APPENDIX D
TOOLS AND MATERIALS

For each student:

- 1 celotex drawing board 20x26". (A drawing board enables a student to support his work in an upright position. Celotex is inexpensive, lightweight, and takes thumbtacks easily. It can be bought in lumber yards in sheets of 4x8' which are easily cut into 6 or 10 drawing boards.)
- 1 painting knife (more versatile than a palette knife).
- 1 paper palette (a cafeteria tray can be substituted).
- 1 - 1" flat bristle brush.
- 1 pointed brush (Japanese bamboo brushes are inexpensive, flick to a sharp point).
- celotex sponge (a stroke across it with a brush will remove excess water).
- water dish
- brayer
- clay tools
- rectangles of formica for making monoprints (scraps donated by a carpenter).
- scissors
- oaktag fold 24x36" (for storing work).

For the group:

- white drawing paper 18x24" (can be torn in half or quarters with ruler if smaller sheets are wanted).
- 24" rule
- onionskin, or colored tissue paper for monoprints.
- 25 lb. tin of clay
- box of craypas
- box of crayons
- pitchers for clean and dirty water
- poster paint in quart jars of red, blue, yellow, black, white.
- 1 syrup jar pitcher for each color (paint should not be diluted otherwise it will run on palette. Ideally paint should have the consistency of oil paints).
- miscellaneous pieces of string, sponge, cork, leaves, vegetables, etc. for monoprints.
- tubes of printing ink
- turpentine for craypas

Average cost per student for materials was \$5.60.

APPENDIX E
EXAMPLES OF WRITTEN COMMUNICATIONS

#1 - For all students.

THE ART CLASSES WILL MEET ON SATURDAY, NOVEMBER 5th, AT 10 o'clock at the Metropolitan Museum of Art at the GROUND FLOOR entrance, 81st Street at Fifth Avenue.

From 10 to 11 o'clock, we will visit a special exhibition called "the Artist's Workshop - Tools and Techniques". This exhibition illustrates the various steps in painting and related arts such as mosaics, glass, frescos, and printing. There are films, slides, peep-holes, and push-button displays, and examples from the museum's collections, which can best be seen individually rather than in a group. It is necessary that adults who bring children plan to stay with them.

From 11 to 12 o'clock, adults and teen-agers who are interested will take one of the museum's acoustiguide tours of European paintings - Goya to Picasso. For those who lipread, I will repeat what I hear on the acoustiguide. For those who read manual language, an interpreter will repeat what he hears. I think this tour would be too tiring for children, and some teen-agers may prefer to leave at 11 o'clock.

We will all have to separate at 12 o'clock since the museum does not permit groups on Saturday afternoons. I hope adults can plan to stay longer. There are two restaurants, a gift and book shop, parking lot, and many exhibitions, both permanent and changing, of works of art from all over the world. There is also another acoustiguide tour which you may want to take another time with a friend (50¢).

If this will be your first visit to the Metropolitan, I'm sure it won't be your last. Museum hours are weekdays from 10-5, Sundays from 1-5. There is no charge for admission and you are welcome.

If you can join us, please tear off the form below and bring it to class or mail to me. Students under 21 must ask their parent's permission to sign trip permit.

#2. For teenagers and adults.

March 11: slides will be shown.

March 18: The art class will not meet here on this day. Instead, we will meet at 1 o'clock in the lobby of the Whitney Museum, Madison Avenue at 75th St. to see the exhibition of paintings by Andrew Wyeth.

The catalogue of the paintings which are exhibited is here for you to look over.

If you would like to go, please sign up. If you are under 21, your parent must give consent on the trip permit which you can bring next week or mail to me in care of the N.Y. Society for the Deaf, 344 E 14 St., NYC.

The Whitney has an admission charge of 50¢. The I.R.T. Subway (Lexington) has a stop at 77th St. and Lexington Ave. The Madison Avenue bus (uptown) stops at the door, the Fifth Avenue bus (downtown) stops a block away.

Members of the Art Club are, of course, welcome. It must be remembered that museums do not want large groups on week-ends, so it is important that we stay separate in small groups while in the galleries.

March 25: There will be no class on this day because of the Easter Holiday. The film showing will be postponed to April 21st.

April 1: Modeling with clay.

#3. For Parents

I would like to caution parents against putting too much emphasis on talent. Many art educators feel that the "art experience" is much more important for children than the "art product". Art can be a source of interest and pleasure throughout life, but the pleasure is destroyed by the feeling that one doesn't have talent. There are

many late-bloomers in the arts as elsewhere, and there can be great pleasure in looking at works of art as well as in creating them.

There are some excellent books on art education for children: Children are Artists, by Daniel Mendelowitz (Stanford University Press, 1963); Education and Art, Edwin Ziegfeld, ed. (UNESCO, 1953); and Meaning in Crafts by Edward L. Mattil, (Prentice-Hall, Inc.) 1965.